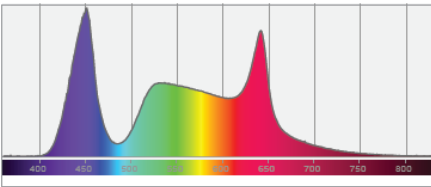
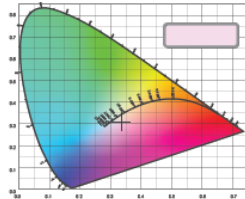


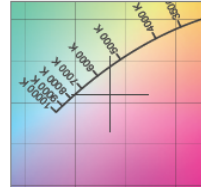
**Spectral distribution**



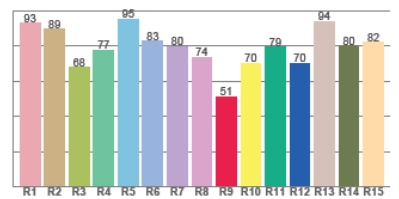
**Color coordinates**



**Zoom color point**



**CRI R values**



# Photometric Test Report

\*Due to additional product enhancements, an updated version of this report may be available online. Please check [www.adj.com](http://www.adj.com) for the latest revision/update of this report.

# MOD TW100



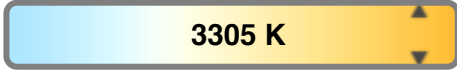
Light Efficiency:



Light Quality:



Color Temperature:



Output: 2006 lm

Peak: 3637 cd

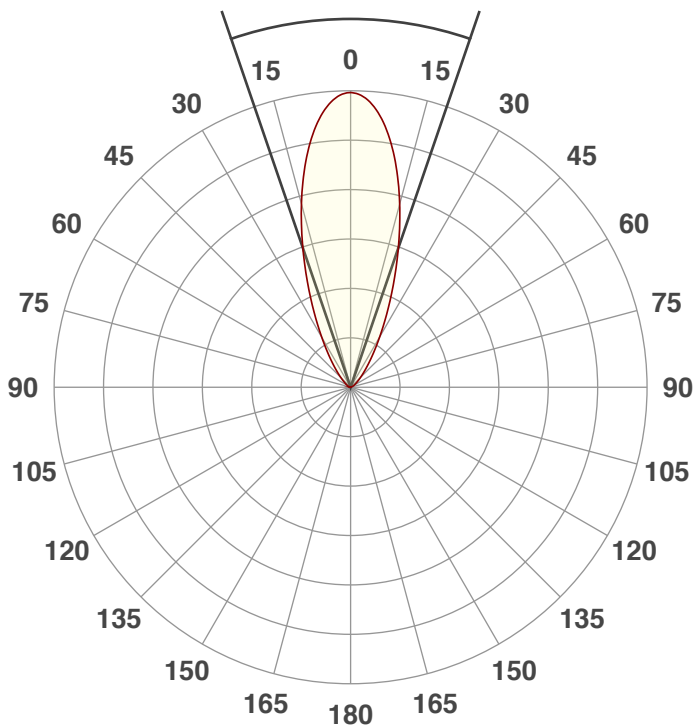
Power: 114 W

PF: 0.63



Beam Angle

**37.8°**



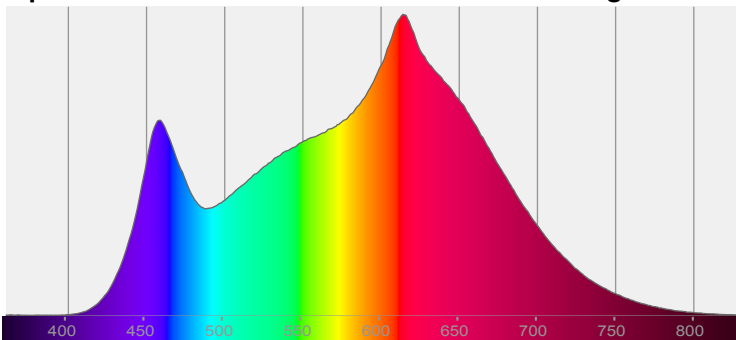
Test: 60Deg Full On  
Date: 11/27/2018  
Note:



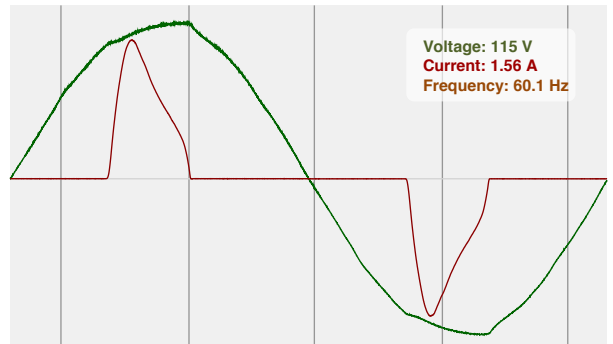
CIE 1931  
x: 0.406  
y: 0.369

Spectra

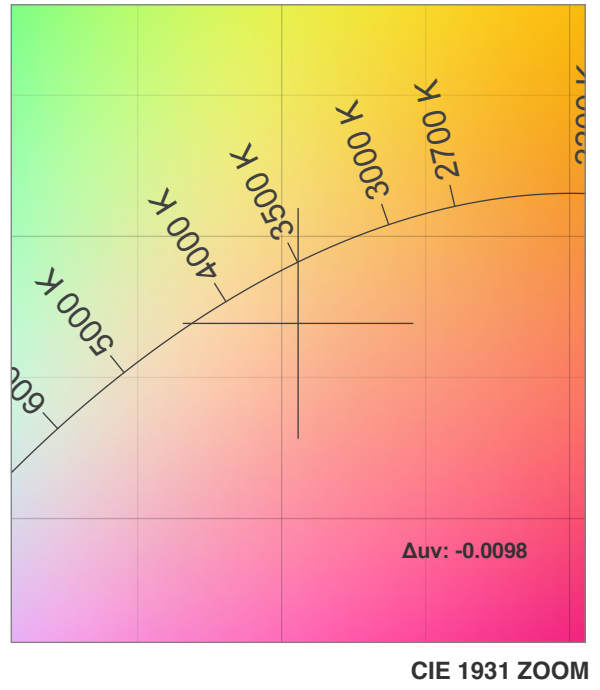
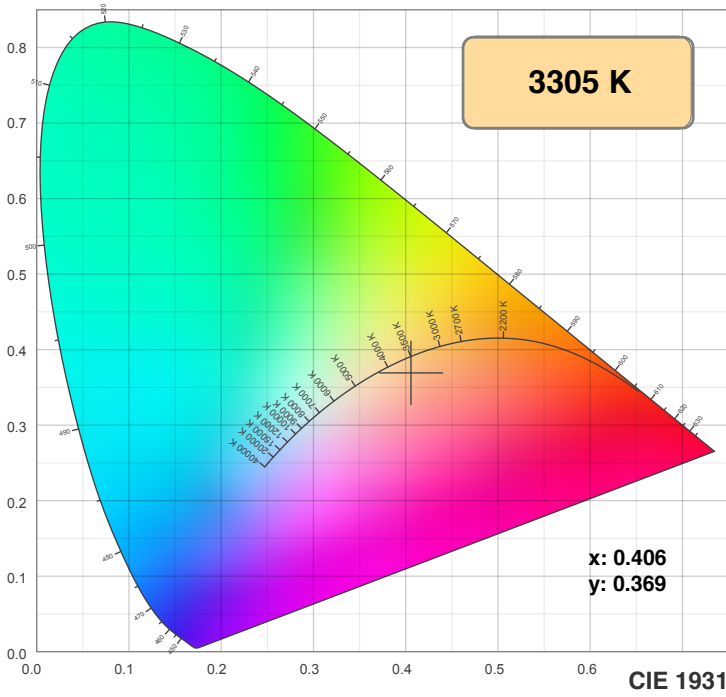
Dominant Wavelength: 588nm



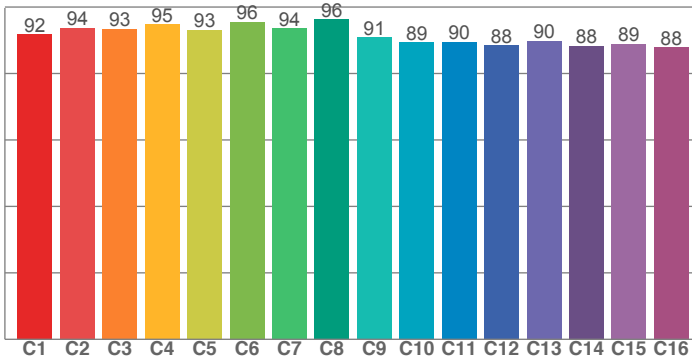
Power



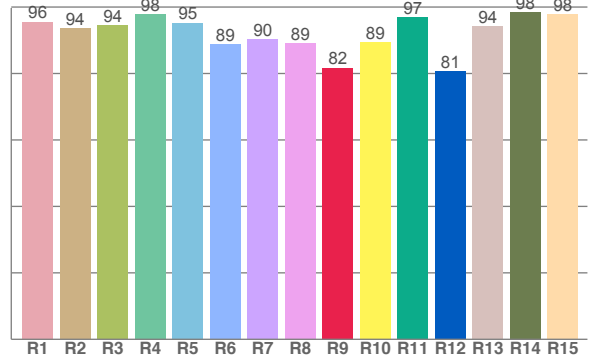
# Color Details



**TM30: 91.7**



**CRI: 93.1 (R1-R8)**



**CRI R values, only R1-R8 are used to calculate final CRI value**

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95.6	93.5	94.5	97.9	95.3	88.7	90.3	89.1	81.7	89.5	96.9	80.6	94.2	98.5	97.7

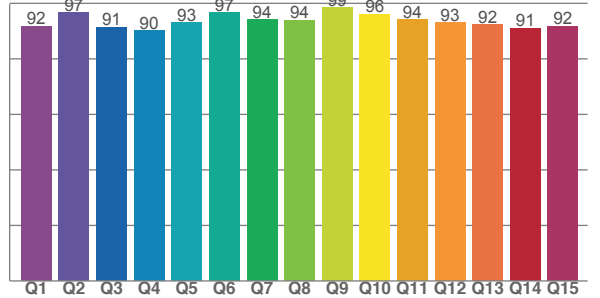
**TM30 C values, 16 binned values out of total of 99 C values**

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.8	93.6	93.4	94.7	93.1	95.6	93.6	96.2	90.9	89.3	89.5	88.5	89.8	88.3	88.9	87.9

**CQS Q values**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91.8	96.7	91.5	90.2	93.0	96.7	94.2	94.0	98.5	96.0	94.1	92.9	92.3	91.1	91.7

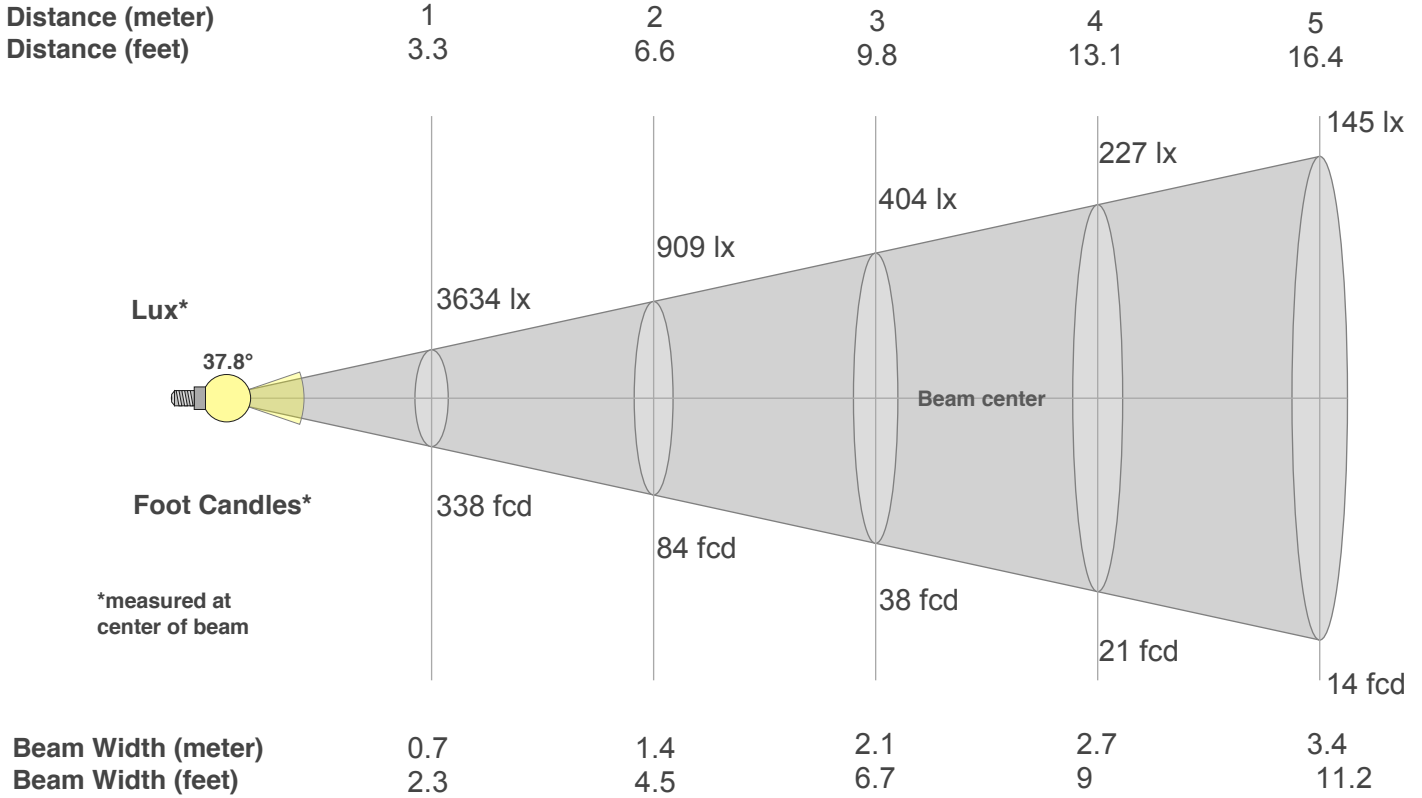
**CQS: 93.2**



## Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3305 K	93.1	81.7	91.7	100.9	93.2	0.406	0.369	0.245	0.335	-0.0098

# Beam Details



## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	3634	909	404	227	145	101	74	57	45	36	30	25	22	19	16	14	13	11	10	9
fcd	337.6	84.4	37.5	21.1	13.5	9.4	6.9	5.3	4.2	3.4	2.8	2.3	2	1.7	1.5	1.3	1.2	1	0.9	0.8

## Intensities in 0° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3634	3609	3524	3388	3206	2988	2741	2478	2208	1939	1681	1439	1219	1025	857	713	591	489	404	334
100%	99%	97%	93%	88%	82%	75%	68%	61%	53%	46%	40%	34%	28%	24%	20%	16%	13%	11%	9%

## Intensities in 90° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3634	3609	3524	3388	3206	2988	2741	2478	2208	1939	1681	1439	1219	1025	857	713	591	489	404	334
100%	99%	97%	93%	88%	82%	75%	68%	61%	53%	46%	40%	34%	28%	24%	20%	16%	13%	11%	9%

## Intensities in 180° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3634	3603	3517	3380	3199	2982	2737	2475	2204	1937	1681	1442	1225	1033	865	721	598	495	410	338
100%	99%	97%	93%	88%	82%	75%	68%	61%	53%	46%	40%	34%	28%	24%	20%	16%	14%	11%	9%

## Intensities in 270° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3634	3603	3517	3380	3199	2982	2737	2475	2204	1937	1681	1442	1225	1033	865	721	598	495	410	338
100%	99%	97%	93%	88%	82%	75%	68%	61%	53%	46%	40%	34%	28%	24%	20%	16%	14%	11%	9%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
37.8°	74.3°	104.8°	98.1%	91.8%

# MOD TW100



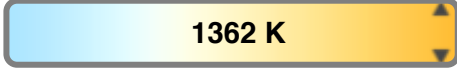
Light Efficiency:



Light Quality:



Color Temperature:



Output: 363 lm

Peak: 672 cd

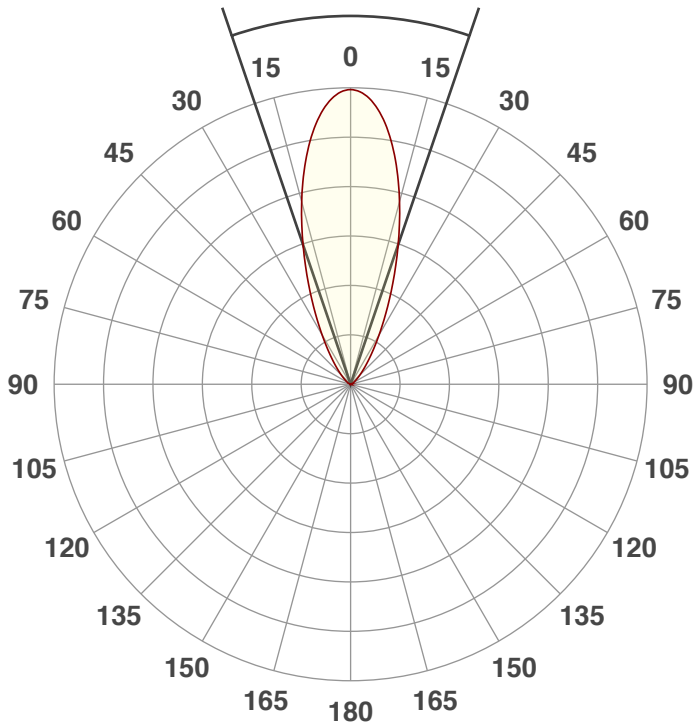
Power: 30.7 W

PF: 0.6



Beam Angle

## 37.7°



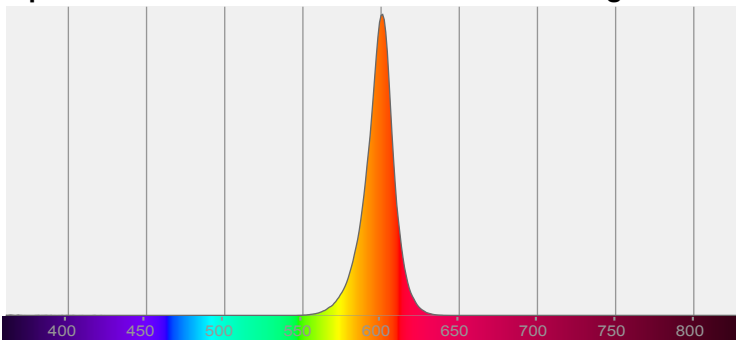
Test: 60Deg Amber  
Date: 11/27/2018  
Note:



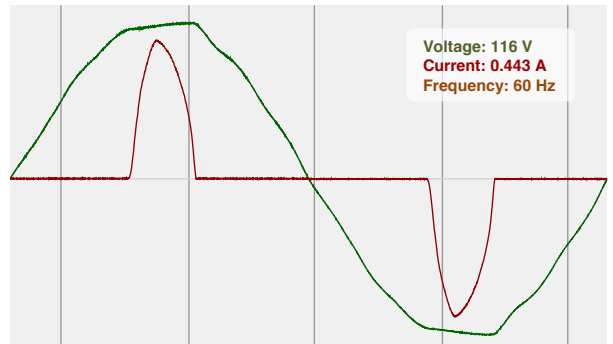
CIE 1931  
x: 0.610  
y: 0.389

Spectra

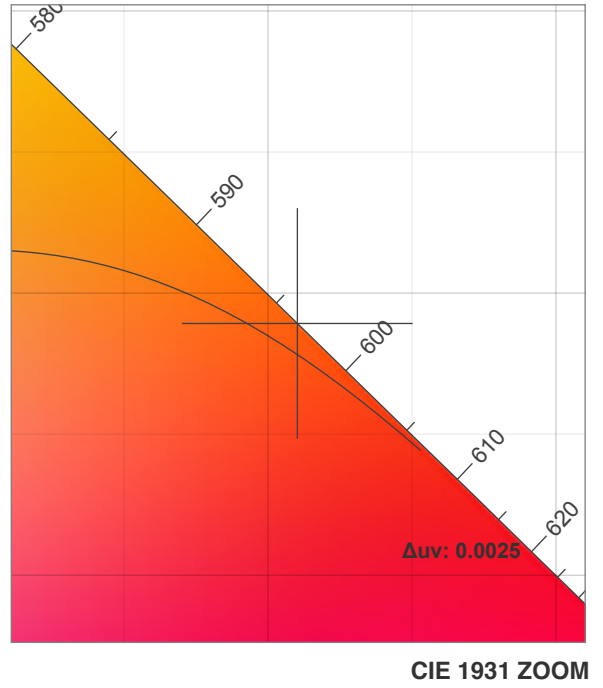
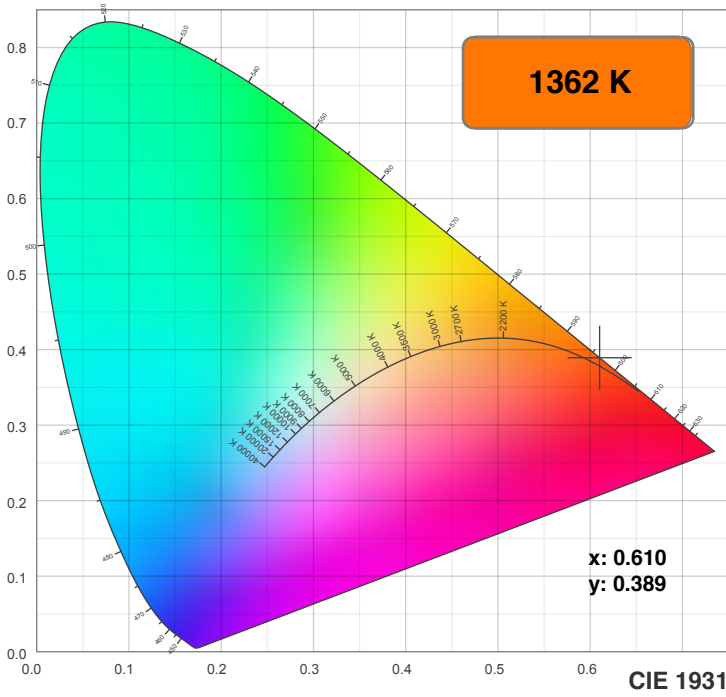
Dominant Wavelength: 596nm



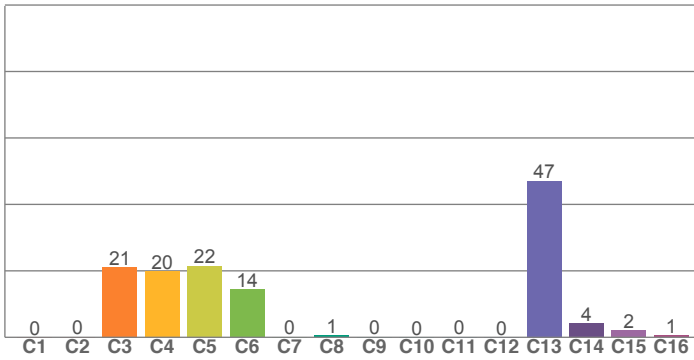
Power



# Color Details



## TM30: 0.5



### CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
-25.8	58.9	13.5	-63.2	-35.6	56.2	-9.0	-128.7	-354.5	41.8	-83.8	15.9	-5.8	45.1	-60.9

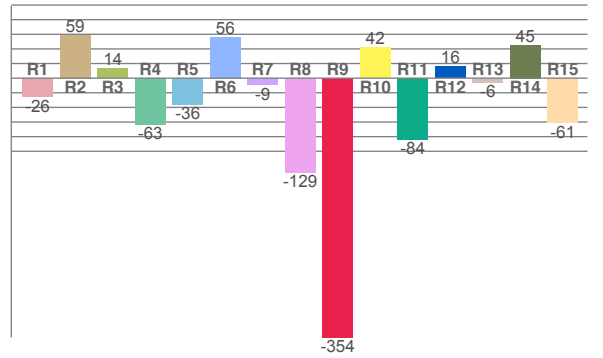
### TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
0.0	0.1	21.1	19.9	21.5	14.4	0.1	0.5	0.1	0.0	0.2	0.0	47.1	4.1	2.0	0.6

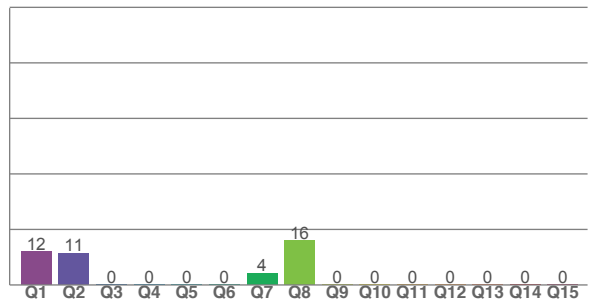
### CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
11.9	11.4	0.0	0.0	0.0	0.2	4.2	16.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

## CRI: -16.7 (R1-R8)



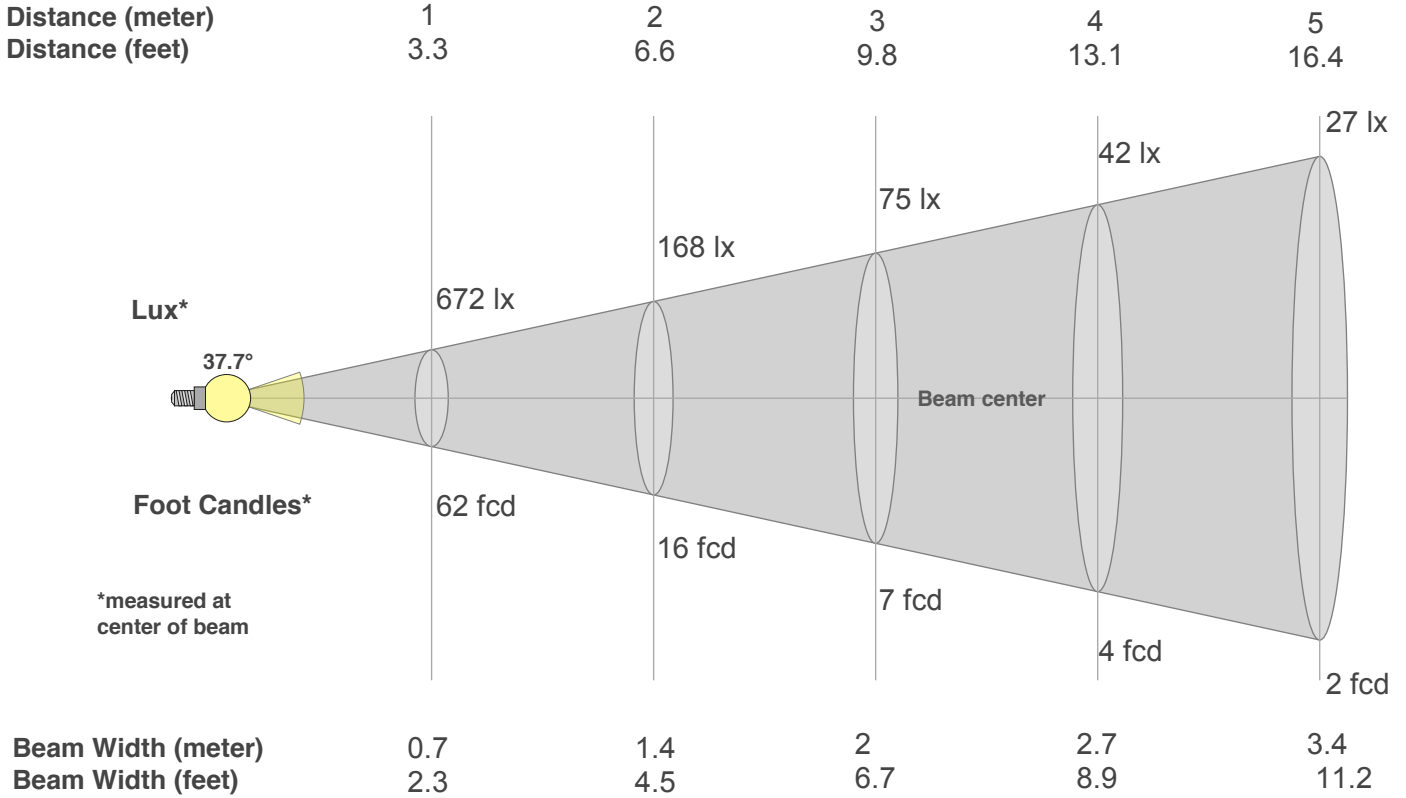
## CQS: 0.0



## Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
1362 K	-16.7	-354.5	0.5	0.4	0.0	0.610	0.389	0.378	0.362	0.0025

# Beam Details



## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	672	168	75	42	27	19	14	10	8	7	6	5	4	3	3	3	2	2	2	2
fcd	62.4	15.6	6.9	3.9	2.5	1.7	1.3	1	0.8	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2

## Intensities in 0° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	89	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

## Intensities in 90° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	89	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

## Intensities in 180° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	88	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

## Intensities in 270° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	88	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
37.7°	73.7°	102.4°	98.4%	92.7%

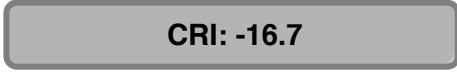
# MOD TW100



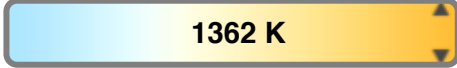
Light Efficiency:



Light Quality:



Color Temperature:



Output: 363 lm

Peak: 672 cd

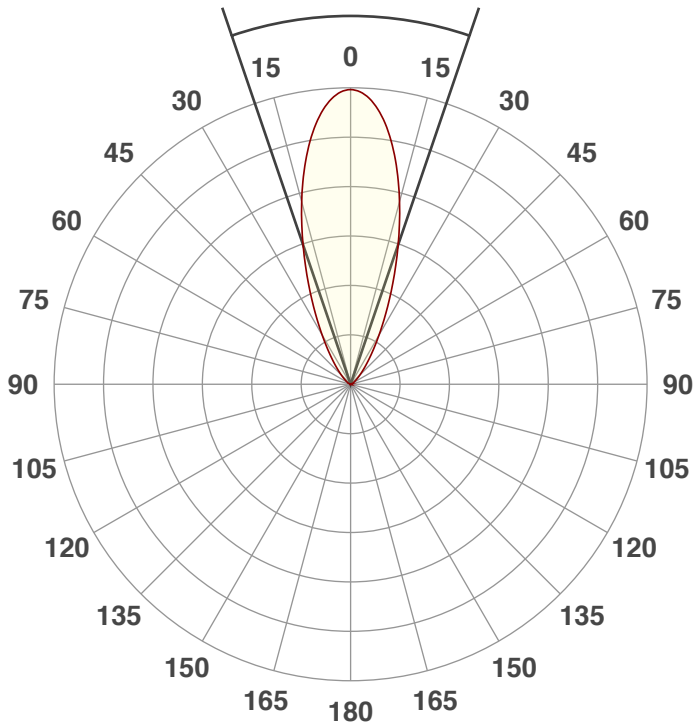
Power: 30.7 W

PF: 0.6



Beam Angle

## 37.7°



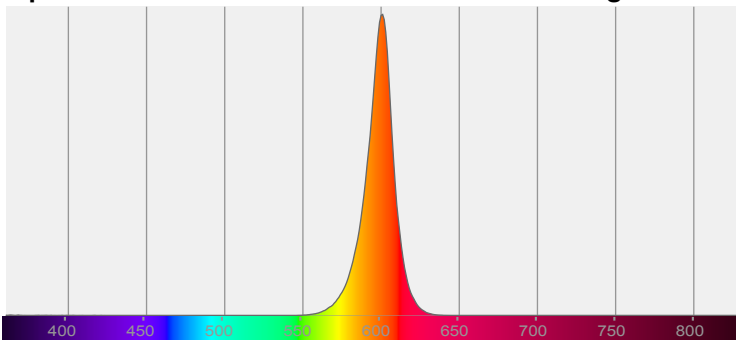
Test: 60Deg Amber  
Date: 11/27/2018  
Note:



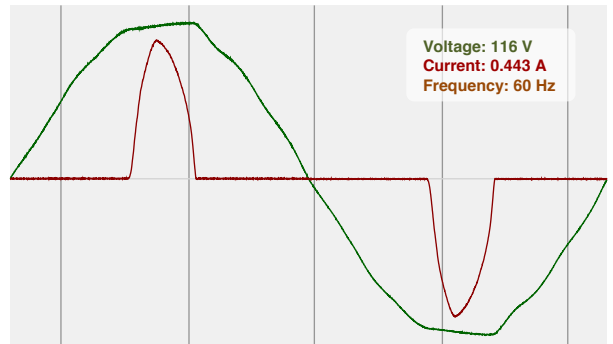
CIE 1931  
x: 0.610  
y: 0.389

Spectra

Dominant Wavelength: 596nm

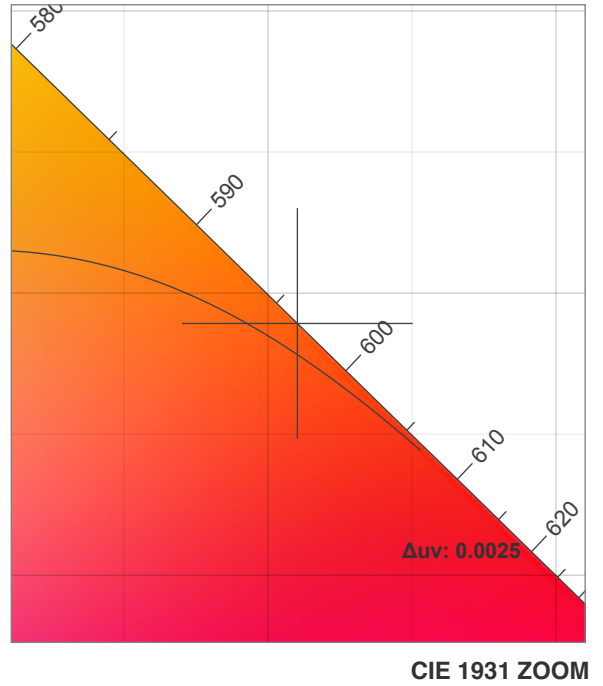
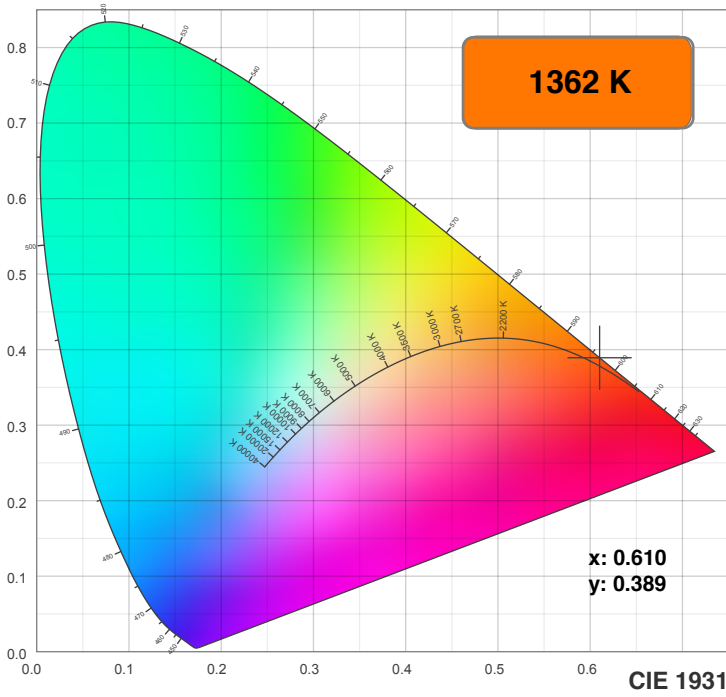


Power

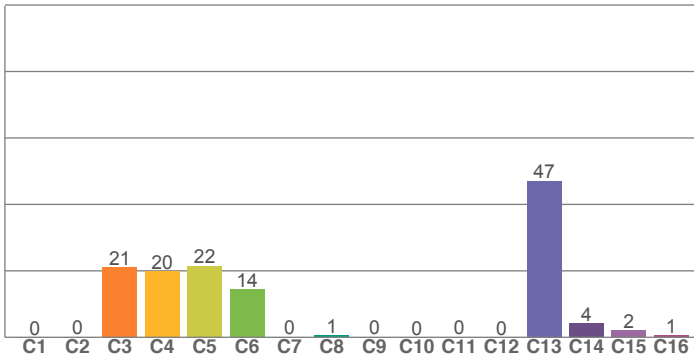




# Color Details



## TM30: 0.5



### CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
-25.8	58.9	13.5	-63.2	-35.6	56.2	-9.0	-128.7	-354.5	41.8	-83.8	15.9	-5.8	45.1	-60.9

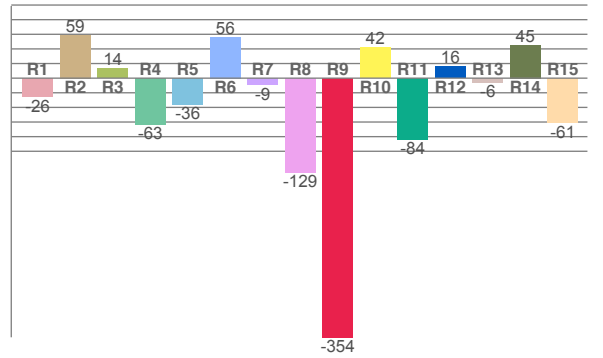
### TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
0.0	0.1	21.1	19.9	21.5	14.4	0.1	0.5	0.1	0.0	0.2	0.0	47.1	4.1	2.0	0.6

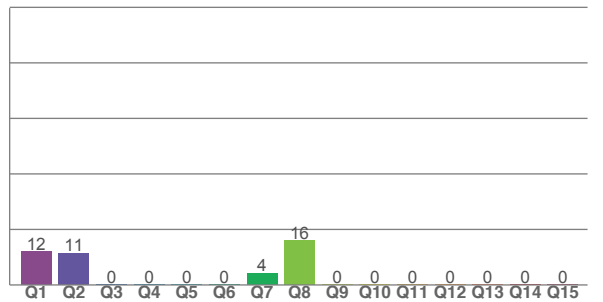
### CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
11.9	11.4	0.0	0.0	0.0	0.2	4.2	16.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

## CRI: -16.7 (R1-R8)



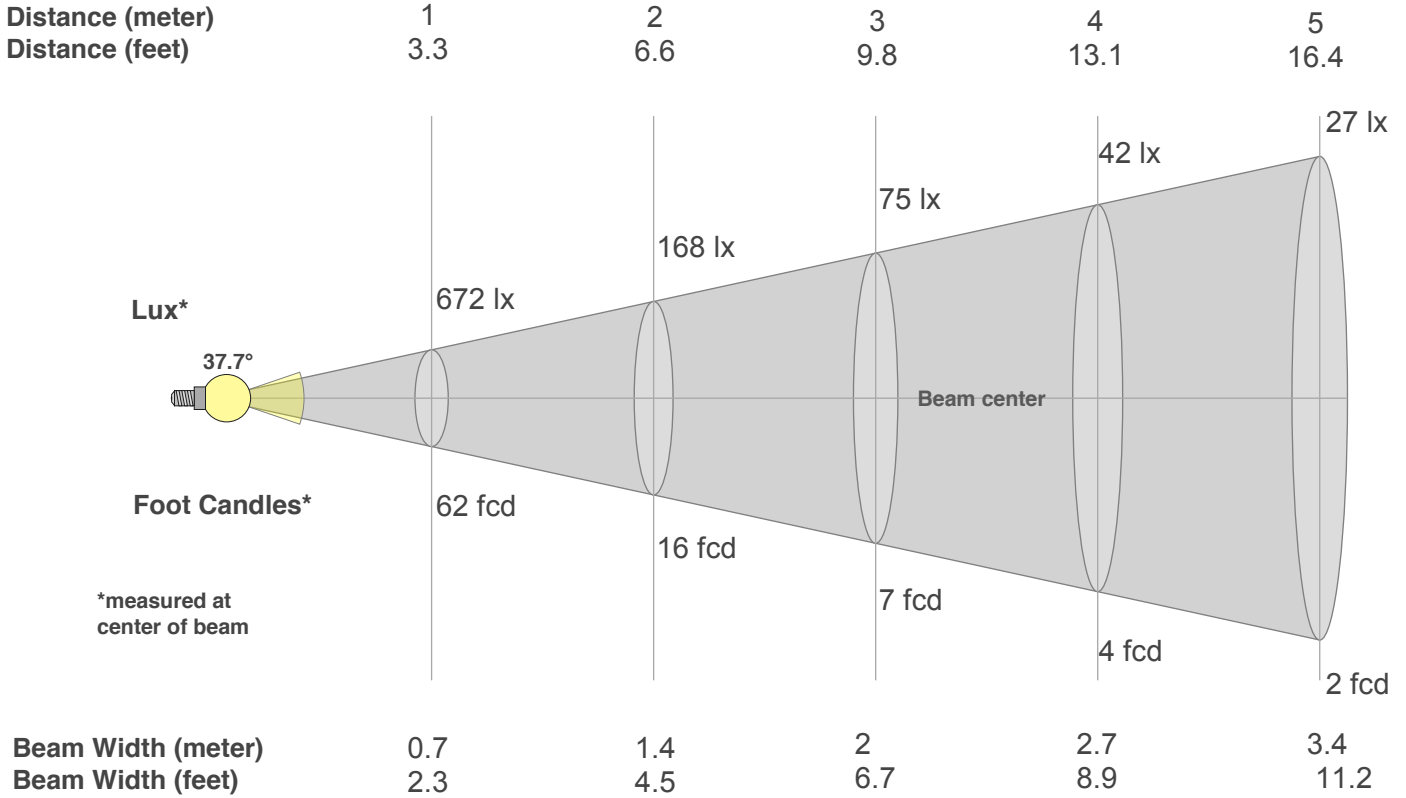
## CQS: 0.0



## Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
1362 K	-16.7	-354.5	0.5	0.4	0.0	0.610	0.389	0.378	0.362	0.0025

# Beam Details



## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	672	168	75	42	27	19	14	10	8	7	6	5	4	3	3	3	2	2	2	2
fcd	62.4	15.6	6.9	3.9	2.5	1.7	1.3	1	0.8	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2

## Intensities in 0° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	89	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

## Intensities in 90° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	89	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

## Intensities in 180° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	88	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

## Intensities in 270° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
672	666	650	625	591	550	505	456	406	356	309	264	224	188	157	130	107	88	73	60
100%	99%	97%	93%	88%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
37.7°	73.7°	102.4°	98.4%	92.7%

# MOD TW100



Light Efficiency:



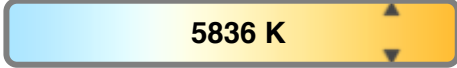
Output: 948 lm

Light Quality:



Peak: 1706 cd

Color Temperature:



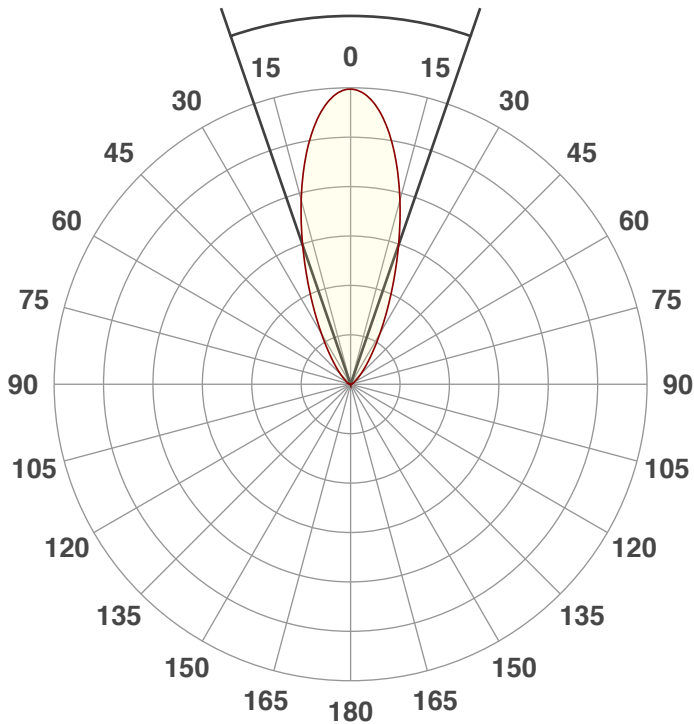
Power: 30.9 W

PF: 0.56



Beam Angle

38°



Test:

60Deg CW

Date:

11/27/2018

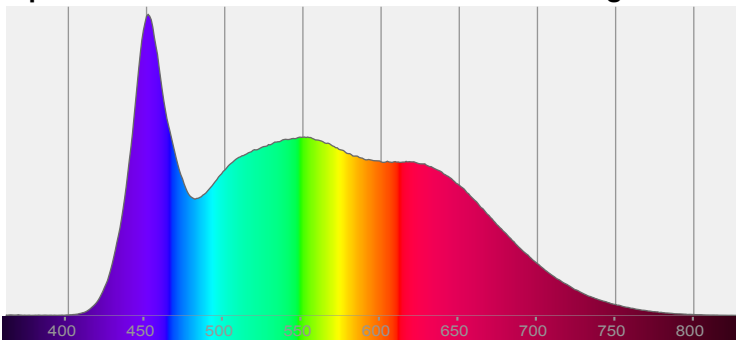
Note:



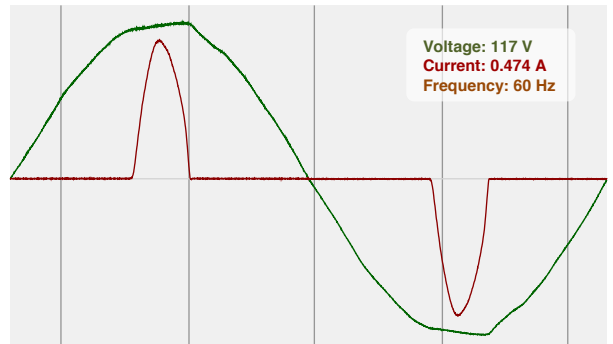
CIE 1931  
x: 0.325  
y: 0.337

Spectra

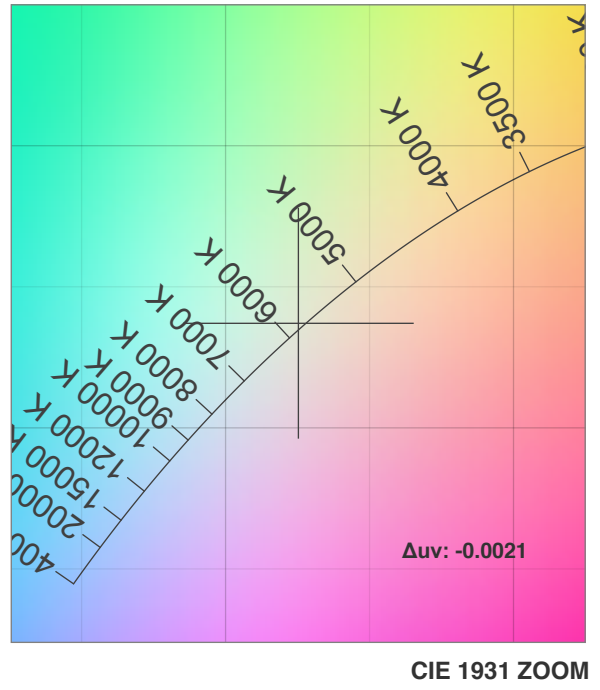
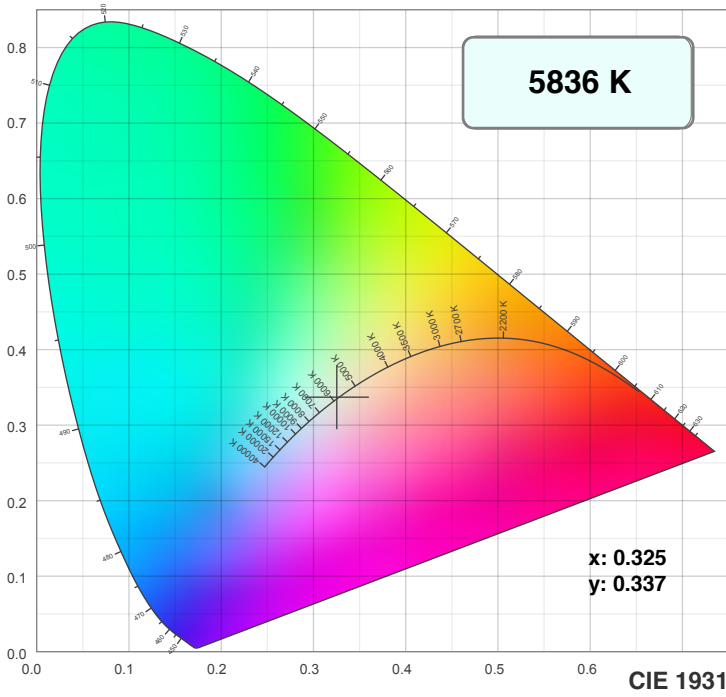
Dominant Wavelength: 583nm



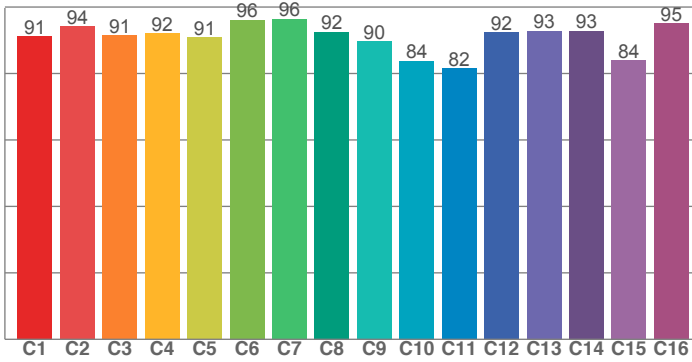
Power



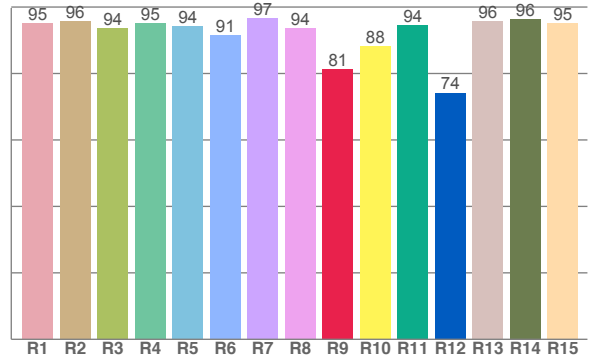
# Color Details



## TM30: 90.8



## CRI: 94.4 (R1-R8)



### CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95.1	95.7	93.7	95.0	94.1	91.5	96.7	93.6	81.3	88.1	94.4	74.2	95.6	96.4	95.2

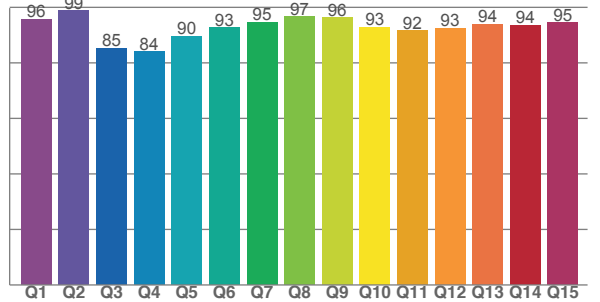
### TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.2	94.2	91.4	92.1	90.8	96.1	96.5	92.5	89.7	83.8	81.5	92.4	92.9	92.9	84.0	95.0

### CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95.7	98.8	85.3	84.0	89.7	92.8	94.6	96.7	96.4	92.9	91.5	92.6	94.0	93.6	94.5

## CQS: 91.9



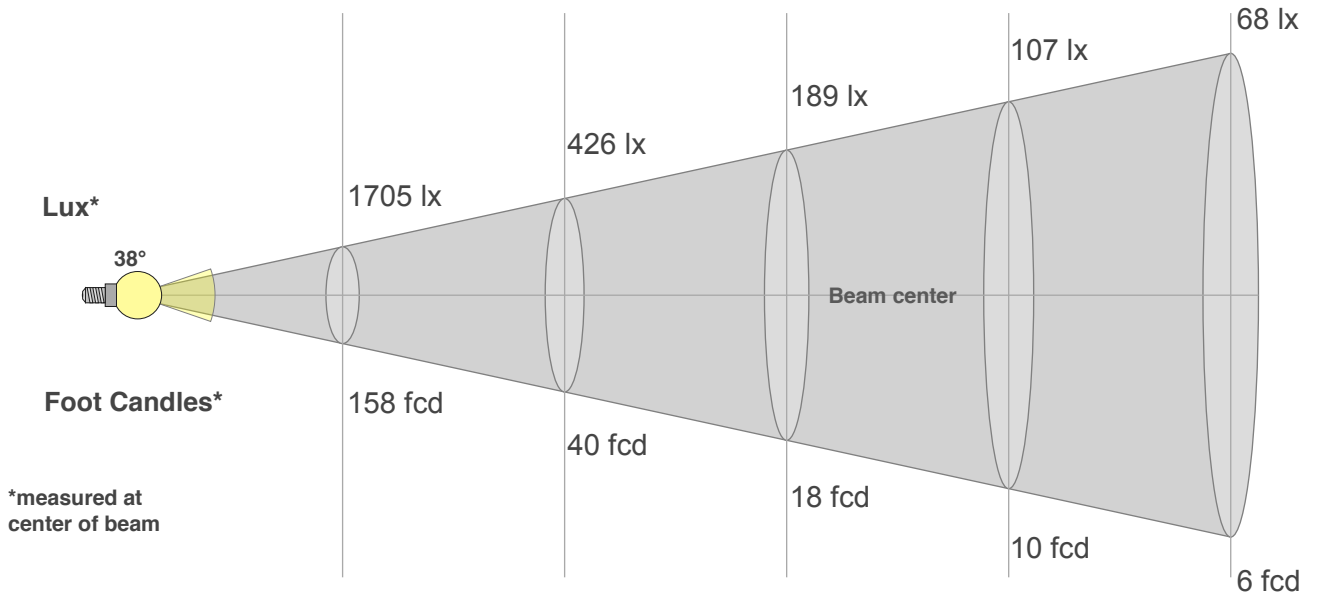
## Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	$\Delta uv$
5836 K	94.4	81.3	90.8	99.8	91.9	0.325	0.337	0.203	0.316	-0.0021

# Beam Details

Distance (meter)  
Distance (feet)

1 2 3 4 5  
3.3 6.6 9.8 13.1 16.4



Beam Width (meter)  
Beam Width (feet)

0.7 1.4 2.1 2.8 3.4  
2.3 4.5 6.8 9 11.3

## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	1705	426	189	107	68	47	35	27	21	17	14	12	10	9	8	7	6	5	5	4
fcd	158.4	39.6	17.6	9.9	6.3	4.4	3.2	2.5	2	1.6	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4

## Intensities in 0° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1705	1693	1654	1591	1507	1406	1291	1168	1040	915	793	680	577	485	406	337	280	231	191	158
100%	99%	97%	93%	88%	82%	76%	69%	61%	54%	47%	40%	34%	28%	24%	20%	16%	14%	11%	9%

## Intensities in 90° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1705	1693	1654	1591	1507	1406	1291	1168	1040	915	793	680	577	485	406	337	280	231	191	158
100%	99%	97%	93%	88%	82%	76%	69%	61%	54%	47%	40%	34%	28%	24%	20%	16%	14%	11%	9%

## Intensities in 180° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1705	1692	1652	1589	1504	1403	1289	1165	1040	914	794	682	580	489	410	342	284	235	195	161
100%	99%	97%	93%	88%	82%	76%	68%	61%	54%	47%	40%	34%	29%	24%	20%	17%	14%	11%	9%

## Intensities in 270° C-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1705	1692	1652	1589	1504	1403	1289	1165	1040	914	794	682	580	489	410	342	284	235	195	161
100%	99%	97%	93%	88%	82%	76%	68%	61%	54%	47%	40%	34%	29%	24%	20%	17%	14%	11%	9%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
38°	74.6°	105.3°	98.0%	91.8%



Light efficiency:

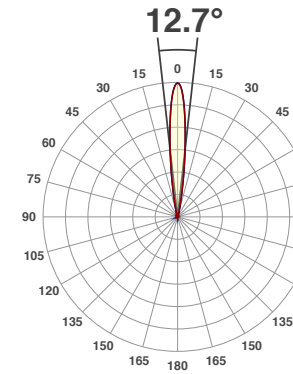
**36 Lumen/Watt**

Light quality:

**CRI: 79.9**

Color temperature:

**3181 K**



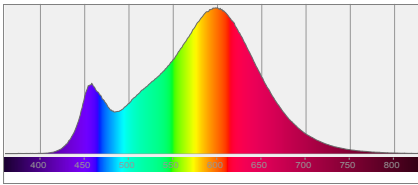
Product name:  
**MOD TW100**

Test:  
**WW**

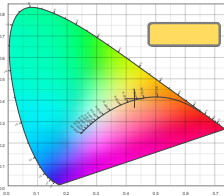
Date:  
**10/11/2017**

Output: 1890 lm Power consumption: 52.9 W Peak: 26449 cd

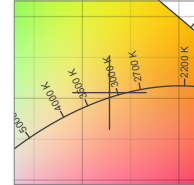
Spectral distribution



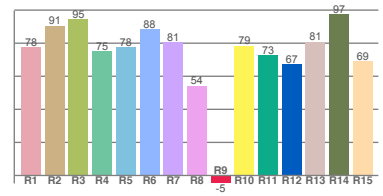
Color coordinates



Zoom color point

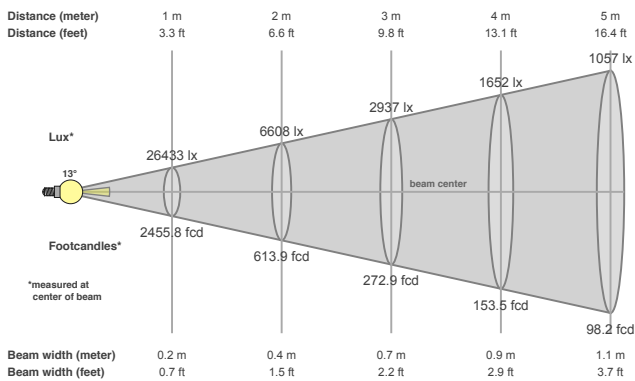


CRI R values



Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3181 K	79.9	-4.8	80.4	91.0	80.0	0.428	0.407	0.244	0.347	0.0025

### Beam details



### Beam angles

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%
12.7°	23.6°	38.2°

### Beam intensities

Peak intensity	Int. ratio in 120° cone	Int. ratio in 90° cone
26449 cd	98.5%	96.9%

### Power

Power	Power factor	Power frequency
52.9 W	0.58	60 Hz

Nominal voltage	Voltage	Current
230 V	114 V	0.807 A

### Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
26433lx	6608lx	2937lx	1652lx	1057lx	734lx	539lx	413lx	326lx	264lx	218lx	184lx	156lx	135lx	117lx	103lx	91lx	82lx	73lx	66lx
2455.8fcd	613.9fcd	272.9fcd	153.5fcd	98.2fcd	68.2fcd	50.1fcd	38.4fcd	30.3fcd	24.6fcd	20.3fcd	17.1fcd	14.5fcd	12.5fcd	10.9fcd	9.6fcd	8.5fcd	7.6fcd	6.8fcd	6.1fcd